



**Protective
Coating Guide
for Boats**

TIKKURILA

TECHNOLOGY TO RELY ON

Extend your boat's life with protective treatment

Boats look their best when they have a durable surface finishing and colour. Various surface finishing products can be used to protect surfaces both inside and outside the boat. Personal preferences and boat's intended use affect on chosen colours. Unusual colours, such as warning colours, are typically used to provide extra safety. Tikkurila's paints and lacquers can be tinted to the desired colour at your nearest Temaspeed distributor's.



The popularity of boating has greatly increased due to the good connections from the sea to inland waterways. Breathtaking island sceneries, distinctive smells and sounds are elements of the life on the water. Getting to know this world is a unique experience. Taking regular care of your boat's cleanliness and safety makes the boating more pleasant.

Savings on costs

A boat should be serviced at regular intervals. Without adequate protection, an uncoated surface is vulnerable to variations in weather and climate as well as other environmental factors.

Service intervals of a boat can be extended considerably by choosing the right surface finishing. The treatments prevent corrosion and microbial intrusions under the paint coat. In the long run, they will also boost the boat's resale value.



Surface finishing program

Preliminary treatments

1. Aluminium boats

Remove grease, oil and soluble salts with an emulsion wash or alkaline MAALIPESU cleaning detergent, after which the surfaces should be rinsed thoroughly with fresh, preferably warm, water.

To improve the adhesion of the paint, roughen the surfaces with sandpaper or light blast cleaning. Use either natural or quartz sand. It is essential to roughen immersed points. Carry out the painting immediately after the preliminary treatment has dried to prevent oxidation.

2. Steel boats

Blast clean steel surfaces to preliminary treatment level Sa2^{1/2}. If the steel parts have been previously shot-blast and painted with shop primer, repeat the blast cleaning to bring damaged areas and welding joints to Sa2^{1/2}. Roughen other painted surfaces with light blasting. Remove the shop primer entirely from underwater structures before painting.

3. Fibreglass and ABS plastic boats

Repair a damaged or scratched gel coat finish with TEMACOAT RM 40 epoxy paint.

Enhance the looks of old plastic surfaces with an application 2-pack TEMADUR 50 or TEMADUR 90 polyurethane paint.

Painting the surfaces

First coat

Paint the pre-treated surfaces immediately after blast cleaning and before the surfaces begin to rust or collect dirt. Apply the primer with a brush, airless spray or conventional spray. Areas that are difficult to reach will require additional layers of paint for desired coat thickness. After the primer has dried, add an extra reinforcement coat on all areas vulnerable to corrosion, such as plate edges, holes, welding joints or places that are hard to paint. If surfaces need to be filled, use waterproof 2-pack epoxy filler after roughening and priming.

Second coat

Once the first coat has dried sufficiently, apply a second layer. Follow the minimum repaint times specified on the product data sheet.

Roughened deck surfaces

Add approximately 50g of PANSSARI LIUKUESTE non-skid agent to 3 litres of TEMADUR 50/90 paint. Use a soft foam plastic roller for the application. Paint after priming the surfaces treatment once the surface has dried to avoid oxidation.



Lightweight aluminium boats

The grade of aluminium used to make boats is extremely durable. It is lightweight in structure and hence easy to handle. The aluminium can be painted to improve the boat's looks and further enhance its durability. The painted surface pleases the eye year in year out.



Treatment systems for aluminium boats

Location	Treatment system	Minimum times before next application	+5°C +10°C +23°C +35°C				Theoretical coverage µm/m ² /l	
Bottom, below water level	TEMACOAT RM 40 Dry film thickness total 2 x 125 µm / 250 µm	TEMACOAT RM 40 immersed With Hardener 008 5600 With Hardener 008 5605	36 h 8 h	16 h 12 h	8 h 6 h		TEMACOAT RM 40 125 µm / 5–6 m ² /l	
Hull, above water level, decks and deck structures	Alternative 1. TEMACOAT RM 40 TEMADUR 50/90 Dry film thickness total 2 x 100 µm / 1 x 50 µm / 250 µm	TEMACOAT RM 40 With Hardener 008 5600 With Hardener 008 5605	10 h 6 h	4 h 3 h	2 h 1/2 h		TEMADUR 50/90 50 µm / 10–11 m ² /l	
		TEMADUR 50/90 Touch dry	8 h	6 h	4 h	2 1/2 h		
	Alternative 2. TEMAPRIME EE TEMALAC AB70 /ML90 Dry film thickness total 2 x 50 µm / 1 x 40 µm / 140 µm	TEMAPRIME EE TEMAPRIME AB 70 / ML 90 Touch dry	4 h 8 h	45 min	1/2 h 5 h	3 h		TEMAPRIME EE 40 µm / 10–11 m ² /l TEMAPRIME AB 70/ML 90 50 µm / 9–10 m ² /l
		TEMADUR CLEAR Touch dry	12 h	8 h	4 h	2 h		TEMADUR CLEAR 40 µm / 10–11 m ² /l
	Note! For a high-gloss finish, TEMADUR CLEAR lacquer can be applied on top of TEMADUR 1 x 40 µm.							

Read the product data sheets and labels carefully prior to painting.

Aluminium

1-pack products

TEMAPRIME EE

is a fast drying special primer with excellent anticorrosion qualities. Suitable for steel, aluminium and zinc surfaces. Used as a primer for interior and exterior surfaces on ships and other such locations where the primer is required to have exceptionally good anticorrosion qualities and adhesion to the substrate. Finish: Matt. Colours: Reddish brown (TVT 4000) and grey (TVT 4001). The product is part of the TEMASPEED PREMIUM tinting system. Thinner: 1006. For larger surfaces Thinner 1053 (slow). Cleaning of equipment: Thinner 1006.



2-pack products (hardener must be added)

TEMACOAT RM 40

is a resin-modified epoxy paint that forms a film to resist hard wear, immersion in water and chemicals. Suitable for use as a primer and finishing paint on steel, aluminium, and zinc surfaces and for underground and underwater structures. Pot life: 8 h (23°C) when Hardener 008 5600 is used. Finish: Semi-gloss. Colours: RAL, NCS, SSG, BS, MONICOLOR NOVA and SYMPHONY colour cards. The product is part of the TEMASPEED PREMIUM tinting system. Thinner and cleaning of equipment: Thinner 1031.

TEMADUR 20, 50, 90

is an acrylic polyurethane paint that resists weathering and wear. Recommended as a topcoat for polyurethane and epoxy systems on surfaces subjected to weathering and chemical stress. Pot life: 4 h (23°C). Finish: Semi-matt, semi-gloss or high-gloss. Colours: RAL, NCS, SSG, BS, and MONICOLOR NOVA and SYMPHONY colour cards. The product is part of the TEMASPEED PREMIUM tinting system. Thinners: 1048 or 1067. For conventional spraying also Thinner 1061 (fast). Cleaning of equipment: Thinner 1048, 1067 or 1061.

TEMADUR CLEAR

is an acrylic polyurethane lacquer that resists weathering and wear superbly as a topcoat lacquer for polyurethane systems. Forms a non-chalking finish that retains its gloss and is easy to clean. Also suitable for lacquering copper, brass, aluminium and zinc finishes. Finish: High gloss. Colour: Clear. Thinners: 1048 or 1067. For conventional spraying Thinner 1061. Cleaning of equipment: Thinner 1048, 1067 or 1061.

Durable steel boats

Corrosion resistance of steel boats is greatly enhanced by surface finishing. A dense and hard finishing effectively prevents the steel from rusting – weather changes cannot penetrate the surface. A correctly chosen surface finishing gives the best possible protection against environmental stresses and other strains.



1-pack products

TEMALAC ML 90

is an alkyd finishing paint for steel surfaces. The treatment retains its gloss and colour well in weathering. Suitable for wet-on-wet painting and for topcoats on small tanks etc. Finish: High gloss. Colours: RAL, NCS, SSG, BS, MONICOLOR NOVA and SYMPHONY colour cards. The product is part of the TEMASPEED PREMIUM tinting system.

TEMAPRIME EE

is a fast-drying special primer with excellent anticorrosion qualities. Suitable for steel, aluminium and zinc surfaces as a primer, for interior and exterior surfaces of boats, for outer surfaces of tanks, and for other locations where the primer is required to have exceptionally good anticorrosion qualities and adhesion to the substrate. Also suitable for surfaces which have to be flame cut or welded after priming. The primer burns only slightly. The burnt paint can be easily removed with a steel brush. Finish: Matt. Colours: Reddish brown (TVT 4000) and grey (TVT 4001). The product is part of the TEMASPEED PREMIUM tinting system. Thinner: 1006. On larger surfaces, Thinner 1053 (slow). Cleaning of equipment: Thinner 1006.

Treatment systems for steel boats

Location	Treatment system	Minimum times before next application				Theoretical coverage µm/m ² /l	
		0°C	+5°C	+10°C	+23°C +35°C		
Bottom, below water level	TEMACOAT RM 40 Dry film thickness total	3 x 100 µm 300 µm	Immersed				TEMACOAT RM 40 125 µm / 5–6 m ² /l
			With Hardener 008 5600	36 h	-	-	
Hull, above water level, decks and deck structures	Alternative 1. TEMACOAT RM 40 TEMADUR 50/90 Dry film thickness total	2 x 100 µm 1 x 50 µm 250 µm	TEMACOAT RM 40 With Hardener 008 5600 With Hardener 008 5605			10 h 4 h 2 h 6 h 3 h 1 h	TEMADUR 50/90 50 µm / 11–12 m ² /l
	Alternative 2. TEMAPRIME EE TEMALAC AB 70 / ML 90 Dry film thickness total	2 x 50 µm 1 x 40 µm 140 µm	TEMAPRIME EE TEMAPRIME AB 70/ ML 90 Touch dry			4 h 45 min 1/2 h 8 h 5 h 3 h	TEMAPRIME EE 40 µm / 11–12 m ² /l TEMAPRIME AB 70/ ML 90 50 µm / 9–10 m ²
	Note! For a high-gloss finish, TEMADUR CLEAR lacquer can be applied on top of TEMADUR 1 x 40 µm.		TEMADUR CLEAR Touch dry			12 h 8 h 4 h 2 h	TEMADUR CLEAR 40 µm / 10–11 m ² /l

Read the product data sheets and labels carefully prior to painting.



Steel

2-pack products (hardener must be added)

TEMACOAT RM 40

is a resin-modified epoxy paint that forms a film to resist hard wear, immersion in water and chemicals. Used as a primer and finishing paint on steel, aluminium, and zinc surfaces. Also suitable for underground and underwater structures. Pot life: 8 h (23°C) when using Hardener 008 5600. Finish: Semi-gloss. Colours: RAL, NCS, SSG, BS, MONICOLOR NOVA and SYMPHONY colour cards. The product is part of the TEMASPEED PREMIUM tinting system. Thinner and cleaning of equipment: Thinner 1031.

TEMADUR 20, 50, 90

is an acrylic polyurethane paint that resists weathering and wear. Recommended as a topcoat for polyurethane and epoxy systems on surfaces subjected to weathering and chemical stress. Used also as a single-coat paint on steel, aluminium and zinc surfaces. Pot life: 4 h (23°C). Finish: Semi-matt, semi-gloss or high-gloss. Colours: RAL, NCS, SSG, BS, MONICOLOR NOVA and SYMPHONY colour cards. The product is part of the TEMASPEED PREMIUM tinting system. Thinners: 1048 or 1067. For conventional spraying also Thinner 1061 (fast). Cleaning of equipment: Thinner 1048, 1067 or 1061.

TEMADUR CLEAR

is an acrylic polyurethane lacquer that resists weathering and wear superbly as a topcoat lacquer for polyurethane systems. Forms a non-chalking finish that retains its gloss well and is easy to clean. Also suitable for lacquering copper, brass, aluminium and zinc finishes. Finish: High gloss. Colour: Clear. Thinners: 1048 or 1067. For conventional spraying also Thinner 1061. Cleaning of equipment: Thinner 1048, 1067 or 1061.

Attractive fibreglass and ABS plastic boats



Practicality and easy maintenance combine in fibreglass and plastic boats. Yet, a suitable protective treatment is needed to keep the boat's surfaces tidy throughout the boating season. Furthermore, pure colour combinations will make your boat look more attractive.



Treatment systems for fibreglass and ABS plastic boats

Location	Treatment system	Minimum times before next application			Theoretical coverage µm/m ² /l
		+5°C	+10°C	+23°C +35°C	
Bottom, below water level	TEMACOAT RM 40 Dry film thickness total	2 x 100 µm 200 µm	TEMACOAT RM 40 immersed With Hardener 008 5600 With Hardener 008 5605	36 h 16 h 8 h 18 h 12 h 6 h	TEMACOAT RM 40 100 µm / 5–6 m ² /l
	TEMACOAT RM 40 TEMADUR 50/90 Dry film thickness total	1 x 100 µm 1 x 50 µm 150 µm	TEMADUR 50/90 Touch dry	8 h 6 h 4 h 2 h	TEMADUR 50/90 50 µm / 11–12 m ² /l
Hull, above water level, decks and deck structures	Note! For a high-gloss finish, TEMADUR CLEAR lacquer can be applied on top of TEMADUR 1 x 40 µm.		TEMADUR CLEAR Touch dry Dry film thickness 40 µm	12 h 8 h 4 h 2 h	TEMADUR CLEAR 40 µm / 10–11m ² /l

Read the product data sheets and labels carefully prior to painting.



2-pack products (hardener must be added)

TEMACOAT RM 40

is a resin-modified epoxy paint that forms a film to resist hard wear, immersion in water and chemicals. Used as a primer and finishing paint on fibreglass and ABS plastic, steel, aluminium, zinc and concrete surfaces. Suitable also for underground and underwater structures. Pot life: 8 h (23°C) when using Hardener 008 5600. 4 h (23°C) when using Hardener 008 5605. Finish: Semi-gloss. Colours: RAL, NCS, SSG, BS, MONICOLOR NOVA and SYMPHONY colour cards. The product is part of the TEMASPEED PREMIUM tinting system. Thinner and cleaning of equipment: Thinner 1031.

TEMADUR 20, 50, 90

is an acrylic polyurethane paint that resists weathering and wear. Recommended as a topcoat for polyurethane and epoxy systems on surfaces subjected to weather and chemicals. Pot life: 4 h (23°C). Finish: Semi-matt, semi-gloss or high-gloss. Colours: RAL, NCS, SSG, BS, MONICOLOR NOVA and SYMPHONY colour cards. The product is part of the TEMASPEED PREMIUM tinting system. Thinners: 1048 or 1067. For conventional spraying also Thinner 1061 (high-speed). Cleaning of equipment: Thinner 1048, 1067 or 1061.

TEMADUR CLEAR

is an acrylic polyurethane lacquer that resists weathering and wear superbly as a lacquer for polyurethane systems. Forms a non-chalking finish that retains its gloss well and is easy to clean. Also suitable for lacquering copper, brass, aluminium and zinc finishes. Finish: High gloss. Colour: Clear. Thinners: 1048 or 1067. For conventional spraying also Thinner 1061. Cleaning of equipment: Thinner 1048, 1067 or 1061.

Plastic

Traditional wooden boats



Wood is a natural material that presents an intriguing challenge. It requires systematic maintenance but at the same time it creates a wonderful atmosphere with its pleasing appearance. Nothing beats the warmth and natural scents of a wooden boat. Thanks to its ecological virtues, the traditional wooden crafts have become a lifestyle to many.

Surface finishing program for wooden boats:

Previously lacquered wooden surfaces

Preliminary treatment

Remove loose or flaking lacquer mechanically by sanding it off. Wash the surfaces carefully with MAALIPESU cleaning detergent or similar product in accordance with the instructions on the product data sheet.

Lacquering above the waterline

Topcoat lacquer:

Sand previously lacquered surfaces to roughen them (e.g. to roughness level 240) and brush off the dust. Apply two or three coats of thinned 10 - 20 % MERIT JAHTI or unthinned MERIT JAHTI PRO lacquer. In between coats, sand the surface down and remove the resulting dust.

New surfaces

Preliminary treatment

If the wooden surface of the boat has been attacked by mould or it has suffered discolouration before the surface treatment, wash it with HOMEENPOISTO

1 mould removal solution. Follow the instructions found on the product data sheet. Apply PINJASOL COLOR primer to a clean and dry wooden surface. Use the primer either uncoloured or tinted according to the Translucent Wood Preservative colour card. Tinted primer will protect the wooden surface more effectively than the uncoloured product. Apply the lacquer 24 hours after the priming. Mahogany and teak surfaces do not need to be primed with PINJASOL COLOR. Wash teak surfaces with GENERAL THINNER 1060.

Lacquering above the waterline

Priming with lacquer:

For priming a boat with lacquer, always use high-gloss MERIT JAHTI or MERIT JAHTI PRO. If you are using MERIT JAHTI, thin the first application roughly 30 % with THINNER 1054. To improve the drying of the lacquer surface, thin the next 2 or 3 coats roughly 10-20 %. If applying MERIT JAHTI PRO, thin the first coat 30 % with THINNER 1054. Apply subsequent coats with unthinned lacquer. Sand the lacquered surface and remove the dust before each subsequent application.

Topcoat lacquer:

For the topcoat lacquer, use either 10-20 % thinned MERIT JAHTI or unthinned MERIT JAHTI PRO in 2 or 3 coats for the desired level of gloss. Between coats, sand the surface and remove the dust. The durability of the lacquered finish can also be affected by the proper maintenance of the boat. It is important to lift your boat from the water and turn it over before the winter season. This will give the wooden parts time to dry. This also prevents the lacquer from peeling and the wood from splitting.

When carrying out spring servicing, it is a good idea to check the lacquer surface and repair any damage before launching the boat. Brush the surfaces with the same lacquer that was used previously.



Treatment systems for wooden boats

Location	Treatment system	Drying + 23°C	Theoretical coverage $\mu\text{m}/\text{m}^2/\text{l}$
Hull and other wooden structures	Alternative 1. MERIT JAHTI 2–4 x gloss grades 20/30/80 Brush or spray application. Thinning 10–30 % by vol., Thinner 1054.	Can be recoated after 24 h Next lacquer coat can be applied after 24h.	100 $\mu\text{m}/4\text{--}6 \text{ m}^2/\text{l}$
	Alternative 2. MERIT JAHTI PRO 2–4 x semi-gloss/gloss Brush or spray application. Airless spray, nozzle size 0.009" (0.230 mm) or 0.013" (0.330 mm) Thinning 0–30 % by vol., Thinner 1054.	Can be lacquered after 12 h Fully hardened and fully resilient in approx. 2 weeks.	100 $\mu\text{m}/3\text{--}5 \text{ m}^2/\text{l}$
For colouring wood	PINJASOL COLOR can be used to colour wood according to the Translucent Wood Preservative colour card. All the colours can also be mixed or made lighter with a clear product. Thinner 1054.	The next application can be carried out 24 h later.	

Read the product data sheets and labels carefully prior to painting.

1-pack products

MERIT JAHTI 20, 30, 80

is a single-pack polyurethane lacquer containing UV protective agent. Highly resistant to wear. Washable with all common detergents (SFS 3755) as well as solvents such as petroleum, naphtha, petroleum spirit and denaturised alcohol with the exception of thinner. Also resists vegetable and animal oils as well as lubricant oil and grease. Suitable for lacquering boats, floors, doors, windows and other wooden surfaces indoors and outdoors. Finish: Semi-matt and gloss. Thinner and cleaning of equipment: Thinner 1054.

MERIT JAHTI PRO 20, 80

is a highly wear-resistant, single-pack polyurethane lacquer. Washable with all common detergents (SFS 3755) as well as solvents such as petroleum, naphtha, petroleum spirit and denaturised alcohol with the exception of thinner. Also resists vegetable and animal oils as well as lubricant oil and grease. Used on wooden interior and exterior surfaces such as boats, floors, doors and windows. Finish: Semi-matt and gloss. Colours: can be tinted with SYMPHONY OR TEMASPEED PREMIUM colourants. Thinner and cleaning of equipment: Thinner 1054.

PINJASOL COLOR

is a translucent wood preserver that contains anti-rot and anti-mould agents. Used on wooden interior and exterior surfaces such as boats, floors, doors and windows. Pot life (23°C): 6 months. Finish: Matt. Colours: Clear and VALTTI COLOR colour cards with some exceptions. Thinner and cleaning of equipment: Thinner 1054.



Wood



Tikkurila paints and lacquers are available in almost any colour and several different gloss levels. Our TEMASPEED PREMIUM tinting system includes all the main colouring systems, such as SYMPHONY, NCS, RAL, British Standards and SSG. Thanks to Tikkurila's sophisticated software and Colour Matching System you get exactly the colours you need – all we require is a colour sample to be matched.

Tikkurila's Temaspeed distributor network brings us close to the customer. More than 200 distributors across Europe guarantee fast deliveries and expert, hands-on service.

For further information of Tikkurila Coatings' products and services, contact your nearest Tikkurila representative. Our specialists are happy to advise you on all topics related to surface finishing.

You can find all the product data sheets and the contact details of Temaspeed distributors from www.temaspeed.com.

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